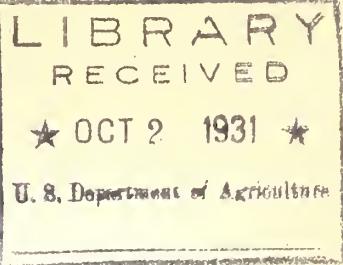


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STEM RUST AND BARBERRY NEWS

Issued by

Division of Barberry Eradication

Volume II

September 15, 1931

Number 10

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Bureau of Plant Industry
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EPIDEMIOLOGY

(Reported by Dr. E. C. Stakman)

There is relatively little new to report on epidemiology studies. Slides are still being examined, physiologic forms are still being identified, reports still are being summarized. Mr. Butler reached San Antonio August 15 and spent several days making germination and inoculation tests with urediniospores collected on grasses in Oklahoma and Texas. He also is making germination tests of spores on straw taken from straw stacks. Some of the spores collected on Elymus in Oklahoma were viable, but apparently many of them had lost their ability to germinate. Volunteer oats and wheat in the vicinity of San Antonio seemed to be quite abundant, but none was rusted in spite of the fact that some of the volunteer wheat with leaves 18 inches long was surrounded by straw that had been heavily rusted last May. Evidently the urediniospores had not retained their viability and could not rust the plants. Mr. Butler will continue to make observations on the possible migration from the North to the South and will also make observations on the possible overwintering of urediniospores in various parts of Texas. Mr. Ukkelberg will make overwintering studies and various studies related to overwintering in the northern area. (Sept. 8)

EASTERN REGIONOhio - 8 East Broad St., Columbus - Harry Atwood

A barberry demonstration was held at the Ohio State Fair during the period August 31 to September 5.

Interest in our demonstration was manifested by the number of people who stopped to study our booth and the length of time they

stayed. At most any time during the day and evening throughout the week, people were observed studying the charts and maps of our display. On several occasions more than 20 people were counted watching the bulletin machines and reading the charts as they were turned.

Our demonstration consisted of two Davis Bulletin Machines in operation, table transparencies, a State map showing the location of barberries found in Ohio from 1918 to 1930, hang-me-up charts, specimens of rusted straw and grasses and plump and shriveled wheat. In addition to this we had potted a typical common barberry and a Japanese barberry bush. A number of bulletins were distributed during the week. Several barberry leads were received and reports of black stem rust on grain during the past summer were numerous.

The barberry films, "Rust" and "Banishing the Common Barberry" are being used extensively by our field men in territory now being surveyed. In many of the rural communities the business men are sponsoring an open air movie during the summer months. Our films are shown at these picture shows. Generally, one film is shown once during the week and the other one is shown on Saturday night. The field men in the community where these films are shown, say that the country people often speak of seeing the pictures and that it is easier to make contacts with the rural folks after they have seen the films. (Sept. 8)

Indiana - Purdue Experiment Station Annex, West Lafayette - W. E. Lear

The systematic survey of Johnson County was completed early in September.

The annual barberry demonstration was placed at the Indiana State Fair September 5 to 12. The usual interest in the exhibit was manifest during the week.

The field force has been reduced to six agents. Survey work will be done in areas of escaped bushes in southern Indiana during September and October. (September 8).

Illinois - Post Office Building, Urbana - Robert W. Bills

Fifteen county superintendents of schools were furnished with lesson plans and literature for distribution to their schools. These

were placed in the hands of the superintendents in time to be given to the teachers when they assembled for the fall institutes. A report of a barberry bush was received in the office September 9 from Irvin Guth, Metamora, Ill. Irvin attends one of the Woodford County schools that was furnished with the lesson plan this year.

Mr. Davis is beginning his school campaign in Boone County. First he spent a week making a resurvey of the rural properties on which bushes have been found and destroyed previously. He is now beginning his visits to the rural schools. He expects to complete the campaign in that county in about two weeks.

Mr. F. C. Meier visited several of the barberry eradication squads on September 3 and 4.

The resurvey of the Galena escaped area in Jo Daviess County was completed on August 29. 1108 bushes were destroyed. A few of bushes were bearing fruit this year, apparently for the first time. One squad has been assigned to the resurvey of the escaped areas along the Illinois River in LaSalle County. Approximately 300 bushes have been destroyed in four days. They range from seedlings to medium sized bushes. The plan of revisiting the escaped areas in Illinois every three or four years is giving very desirable results. The areas are being reduced rapidly, both in number and size of the bushes. Further increase in the extent of the areas is prevented by destroying bushes before they reach the fruiting stage.

Mr. Maxey and Mr. Roll resigned in August to resume their teaching positions at Fargo, North Dakota and Cullom, Illinois. Mr. Wright resigned September 5 to continue as biology instructor at the high school at Bloomington, Ill. The agents who are to return to college this month are resigning on September 11. Fifteen men are remaining for work through September and eleven men are remaining until the season closes. (September 10)

Michigan - Michigan State College, East Lansing, Francis B. Powers

The squads in the southern part of Michigan have been having a real opportunity to see common barberries growing as they are reported to exist in the New England States. Four tons of salt were needed to eradicate 2,016 bushes and 7,000 seedlings located by Tom Van Zanden's squad in an area covering approximately a quarter section in Van Buren County.

Some large bushes have been located in the same county. On a recent visit the Leader saw five between 12 and 15 feet tall.

Mr. C. F. Salisbury was able to obtain a partial history of one of these bushes. It was planted in 1872 by a man who had a small nursery. Twenty-five years ago the bush, then nearly as large as it is now, was cut down and has since attained its present growth. Mr. Salisbury reports that the tallest branch measured 18 feet.

Since starting our work in Michigan this spring we have eradicated 15,235 bushes and 36,930 seedlings.

At present we have a demonstration at the State Fair in Detroit which, according to Mr. McIntyre, is attracting considerable attention. (Sept. 8)

Wisconsin - State Capitol Annex, Madison - Vern O. Taylor

The survey work in Wisconsin is progressing uniformly with all squads finding bushes.

The crew working in Green Lake County has finished the Lawson estate and moved to the south side of Green Lake where a great many bushes are being destroyed.

The labor crews in Dane County are working in a newly found area of escaped bushes south of Sauk City in the hills along the Wisconsin River. The bushes are of medium size with a few found bearing fruit. Due to the nature of the country, the heavy growth of brush and the great number of bushes, the work in this vicinity has been progressing less rapidly than at any time this season. A hedge of 10 heavily fruiting bushes was found in the village of Sauk City, and other properties have been found in the village with large fruiting bushes growing as decorative shrubs.

The area of escaped bushes around Potosi, in Grant County will be worked to satisfactory boundaries by the close of the season.

A crew of laborers will continue survey work in Iowa County, and it is hoped that this area of escaped bushes will be cleaned up by November 1.

While Mr. Meier was in Madison on September 9 he visited the work near Sauk City, and examined territory which was being worked last year while he was here on a similar visit. Dr. J. G. Dickson and Mr. E. L. Chambers, state entomologist, accompanied Mr. Meier on this trip.

The Wisconsin State Fair was quite successful this year and the barberry eradication demonstration drew considerable attention. It was interesting to observe the number of city people who asked questions about the difference between Japanese and common barberry and wanted to know how barberry bushes spread rust. (Sept. 11)

WESTERN REGION

Minnesota - University Farm, St. Paul - Leonard W. Melander

The Minnesota State Fair is now in full swing. Common barberry is being displayed in the Agricultural Building. The theme of the demonstration is the National Rust Busters' Club. In the back center of the booth is a reproduction of the Rust Busters medal enlarged fifteen times. To one side is an enlarged picture of a boy who has won a medal. Under this picture is a sign entitled, "Where we look for common barberry." On the other side is an enlarged picture of a girl who has won a medal. Under this is a sign entitled "Why we look for common barberry", and on this sign are listed the reasons we look for common barberry. This demonstration is attracting a lot of attention. The officials of the fair indicate their satisfaction by bringing their official guests to see it.

An interesting result of our school campaign was the awarding of a prize by the State Fair Society for the best essay on the relation of common barberry to black stem rust. Several counties entered this contest and the best essays from each county were entered at the State Fair. The keen competition indicated that there were a large number of very good essays. (Sept. 8)

Iowa - Morrill Hall, Iowa State College, Amos - D. R. Shepherd

The barberry eradication field force doing survey work in Iowa was reduced to 12 men September 1. We hope to complete the survey of Woodbury, Plymouth, and Greene Counties by the time the late fall work is completed. Carroll County was completed last week.

An interesting observation was made by the Leader last week on a visit to an escaped area in Linn County that was treated on June 20. This area, containing more than 300 escaped barberries, was treated with kerosene. At that time many of the bushes were in blossom and some of the berries were in the formative period. Although the bushes that were treated with kerosene have apparently died, the berries have all matured and are now ripe. A close examination of the berries indicated that the treatment with the kerosene had not affected them. Of course it is difficult to determine whether

or not they are viable. This information merely verifies the fact that kerosene is a very slow killer and whenever it is used precaution should be taken to see that no berries are left on the bushes to mature.

The Leader talked to a county rural teachers' institute at Spirit Lake on Friday, August 28. At this time he discussed the Iowa informational activity program and also distributed the filing cases to these teachers. This is the only institute that we plan to make this fall.

Definite arrangements have been made with the county superintendent of schools in Jones County to do intensive educational work with the rural schools in that county this fall. It is possible that this work will be carried on in two counties, however, only one county has been arranged for to date. This work will be done this fall by Mr. R. G. Brown, who carried on the intensive work in Linn County this spring. (Sept. 15)

District No. 1 - Post Office Building, Fargo, N. Dak. - G. C. Mayoue

After completing the fair schedule with the exposition at Miles City, Mont., September 15-18, Mr. Twilde with agents Zeidler and Bruner will begin the organization of Rust Buster Clubs in Fergus and Judith Basin Counties. In addition to being in an important agricultural area these two counties have shown promise for intensive educational work by the results obtained from previous demonstrations.

Leaving their special survey in Pembina County, North Dakota, to be continued by two agents who had been assisting them, agents Tyler and Mortenson returned to their original headquarters at Minneapolis on August 31. Mr. Tyler will resume his post graduate studies at the University of Minnesota while Mr. Mortenson has not yet decided upon his activities for the winter.

Intensive educational work with the organization of Rust Buster Clubs in Burleigh, Morton, and Grant Counties, North Dakota, will begin about the fourth week in September following the conclusion of survey now being carried on in Sargent County. (Sept. 8)